

Data Analysis and Probability  
Lesson 29 Worksheet  
Math for Standards

Name \_\_\_\_\_

Date \_\_\_\_\_

1. In answering a question on a survey, 75 people answered yes and 55 answered no. What is the probability of someone answering no? (3 points)

2. A spinner with six equal sections labeled 1-6 is spun and a coin is flipped. Show the sample space using a tree diagram. (6 points)

3. A card is drawn from a standard deck of 52. Find each probability. (12 points)

a.  $P(\text{black or heart})$

b.  $P(\text{black and an ace})$

c.  $P(\text{heart or face card})$

d.  $P(\text{club or heart})$

4. A box contains ten colored pencils and five markers. Of the pencils, two are red, five are blue, and three are green. Of the markers, one is red, two are blue, and two are green. A pencil or marker is picked at random from the box. Find each probability. (12 points)

a.  $P(\text{pencil or red})$

b.  $P(\text{marker or blue})$

c.  $P(\text{green pencil})$

d.  $P(\text{green or pencil})$

5. Two six-sided number cubes are rolled. Find the probability that the sum of the numbers rolled is 2 or 3. (3 points)

6. A box contains eight blue index cards, four yellow index cards, and two pink index cards. Cards are taken at random from the box, one at a time, and then put back. Find each probability. (6 points)

a.  $P(\text{blue, then pink})$

b.  $P(\text{pink, then yellow})$

7. A bag contains three red buttons, six black buttons, and eight white buttons. Buttons are taken at random and not replaced. Find each probability. (6 points)

a.  $P(\text{black, then white})$

b.  $P(\text{red, then black})$

**Open-Ended Question: Make sure as you answer the open-ended question that you show your work AND explain how you know you are doing the correct work. YOU MUST EXPLAIN WHAT YOU ARE DOING!!!**

Four students in a class were chosen to possibly participate in an experiment. Three were girls: Amy, Penny, and Lauren. One was a boy, Patrick. One student was going to take part and when his or her turn was finished, a second student was going to have a turn.

A. Draw a tree diagram of all possible pairs of names that could participate in the experiment.

B. Find the probability that the first student was Penny and the second was Patrick.

C. Find the probability that both students were girls.